Bureau of Air Quality
Construction Permit Application
Part IIA: Fuel Burning Source
Instructions

PURPOSE:

To obtain the information needed to process applications for air permits and to maintain these permits. The information requested is used to determine whether a source must meet State and/or Federal Regulations and if the source is capable of achieving the applicable standards.

EXPLANATION AND DEFINITION:

Any person who plans to construct, alter or add to a source of air contaminants, including installation of any device for the control of air contaminant discharges, shall first obtain a construction permit from the Department prior to commencement of construction. In order to obtain a permit, the source must first complete and submit a permit application form.

Use Form Part IIA for a fuel burning operation which is defined as "use of furnace, boiler, device or mechanism used principally but not exclusively to burn any fuel for the purpose of indirect heating." Dryers, kilns, tenter frames, etc., are usually not considered fuel burning sources, but are considered process sources (Part IIB application).

GENERAL INSTRUCTIONS:

Unless designated as optional, all blanks on application form(s) must be completed for the application to be considered complete, along with necessary requested information on the item by item instructions below. Incomplete applications will not be processed. Attach additional sheets as necessary.

Type or Print using ink to complete form, NO PENCIL PLEASE. When filling out on the computer, use only the tab key to move your cursor. Do NOT use the Return/Enter key to move your cursor.

ITEM BY ITEM INSTRUCTIONS:

1. Fuel Burning Equipment Information

Unit ID: If modifying an existing Unit ID, list the applicable ID number here. If this is a new installation, leave this item blank, and a Unit ID will be assigned by the Bureau. The Emission Unit ID should be numeric characters (01, 02, etc.).

Equipment ID: The equipment identification (tag number) for each piece of equipment. Each piece of equipment should have its own unique ID (alpha-numeric). This is designated by the facility and is not necessarily a permit ID number.

Permit Number: The existing South Carolina Air Permit Number. If the facility is new or does not currently have a South Carolina Air Permit Number, leave this item blank. A number will be assigned by the Bureau.

File Name: For electronic copies of the permit application, please fill in the name of the file containing this form. Please limit the file name to sixteen (16) characters (excluding file extension such as .doc, etc.).

Check all that apply: New Unit; Replacement Unit (specify what unit replaced); Fuel Addition/Change to Existing Unit (detail exactly what the change is); Physical Modification to Existing Unit (specify the modification to the unit and include any information necessary to determine whether or not modification would be considered reconstruction for NSPS or MACT); or Other (please specify).

Type of Unit: Indicate whether steam boiler, dowtherm heater, hot gas heater, etc.

Purpose: List all purposes of the fuel burning source including but not limited to steam production, waste combustion, use as a control device, etc.

Date of Manufacture: List Manufacture date (MM/DD/YYYY), if applicable.

Installation Date: The proposed installation date of the equipment at the facility.

Reconstruction/Modification Date: The last date on which the piece of equipment was modified.

Make: The make of the unit.

Model: The model of the unit.

Not available at this time: If the above make and model are not known, check box appropriately

Rated Input Capacity: Maximum rated input capacity in BTU/hr

Does the unit combust a waste as defined in SC Reg. 61-62.1? If yes, which waste streams? If the facility combusts any waste (solid, liquid or gaseous) in any amount or for any reason, list all wastes appropriately. If the facility does combust a waste stream, submit a waste analysis as required by SC Regulation 61-62.5, Standard 3, Section V for each waste stream.

Number of burners: List number of burners in the fuel burning device

Size of each burner: List the size of each burner in the fuel burning device

Is the unit equipped with Low NOx burners: Check Yes or No and indicate which fuels as appropriate.

Is the unit capable of soot blowing: Check Yes or No and indicate which fuels as appropriate.

Burner type: List type of burner if burning solid waste.

Is this unit equipped with a control device? Is yes, please complete page 3 of the form. See Instructions in Section 8 of this document.

2. Fuel Data

Fuel Type and Grade: List type of fuels combusted and grades (e.g. Natural gas, No. 2 fuel oil, B20).

BTU Content: List heat capacity of each fuel (BTU/lb, BTU/gal, etc.).

% Sulfur by weight: List maximum % sulfur allowed in the fuel type and grade as applicable.

% Ash by weight: List maximum % ash allowed in the fuel type and grade as applicable.

Consumption @ Maximum Rated Capacity: List quantity of fuel combusted at maximum capacity.

3-5. Emission Rates by Fuel Type

Fuel Type: Type of fuel that the subsequent emission calculations are based on. If using more than 3 fuels, please attach additional sheets as needed.

Uncontrolled (lb/hr and ton/year): List the maximum emissions from this source with no limitations (without controls and operating at design capacity) in lb/hr and tons per year.

Maximum Controlled (lb/hr and ton/year): List the maximum emissions from this source as designed with control equipment operating and/or federal enforceable limits in lb/hr and tons per year. It should be clear in the attached calculations if the maximum controlled emissions are based on control devices, operational limits, and/or both.

Calculation Method: State the method of which emissions were calculated (i.e. AP-42, Engineering Calculations, Material Balance). Attach an example of each calculation and information for the Bureau to verify all of the emission calculations.

6. Speciated HAP and TAP Emissions from Fuel Burning

Fuel Type: Specify emissions for each fuel type.

Pollutant: List the pollutant name for which the emissions are calculated. Speciate the emissions for any HAP or TAP pollutant.

CAS Number: List the appropriate CAS Number, if applicable.

HAP, TAP or Both: Specify the type of pollutant, a Hazardous Air Pollutant (HAP) as defined by Section 112(b) of the Clean Air Act Amendments of 1990, or a Toxic Air Pollutant (TAP) as specified by SC Regulation 61-62.5, Standard 8 or both.

Uncontrolled: List the maximum emissions for this source with no limitations (without controls and operating at design capacity) in tons per year.

Controlled: List the maximum emissions from this source as designed with control equipment operating and/or federal enforceable limits in tons per year. It should be clear in the attached calculations if the maximum controlled emissions are from control devices, operational limits, and/or both.

Calculation Method: State the method of which emissions were calculated (i.e. AP-42, Engineering Calculations, Material Balance). Attach an example of each calculation and information for the Department to verify the emission calculations.

7. Operating Schedule Information

Indicate operating schedule including normal operation and seasonal variation.

8. Control Device Information (If the fuel burning operation does not have a control device, this page is not necessary)

Fill out the form with the control device as the primary, secondary or other as applicable.

Control Device ID: The control equipment identification (tag number) for each piece of equipment. Each piece of equipment should have its own unique ID (alpha-numeric). This is designated by the facility and is not necessarily a permit ID number.

Stack/Exhaust ID: Each point where a pollutant may exhaust at the facility shall be identified with a unique number or label. Please use the same Stack/Exhaust ID that is used in your current air dispersion modeling scenario, if applicable. This ID number should be carried throughout the application whenever Stack/Exhaust ID is requested.

Manufacturer Make and Model: List make and model of the control device.

Type of Device: List type of control device (e.g. baghouse, ESP, fabric filter, Thermal Oxidizer, flare, Wet Scrubber).

Inherent to the Process: Discuss whether the control device is inherent to the process. If so, explain.

Pollutants Controlled: Check the boxes as appropriate for all pollutants controlled. If the unit controls more than one type of pollutant, check all that apply. If the pollutant is not listed, check Other and list pollutants.

Projected Capture Efficiency: State the efficiency of capture system or what percentage of the emissions from the process enters the control equipment.

Destruction, Control, or Removal Efficiency: State the removal or destruction efficiency of control system.

Engineering Design and Operating Characteristics: Description should also include type of bags, number of compartments, type of regeneration, etc., as applicable or other design characteristics as applicable.

Manufacturer's Specifications and Ratings: Include manufacturer's specifications and ratings.

Recommended Control Device Monitoring/Data Collection: List each parameter being monitored or data that is collected to ensure proper operation of the control equipment. Also list any preventive maintenance and inspections for the control equipment if appropriate.

Recordkeeping: List recordkeeping necessary to ensure that appropriate monitoring is done including frequency of the recordkeeping and reporting of the information if applicable.

OFFICE MECHANICS AND FILING:

This form may be photocopied for future use.

In accordance with retention schedule HEC-AQC-3 break file at the end of each fiscal year, retain within the Agency for five additional years and then destroy.